REMARKS

Claims 1, 6, 10, 15, 18 and 19 are rejected under 35 USC 102(e) as being anticipated by Chin et al (US 6,653,619). With respect to claim 1, the Examiner states that Chin et al discloses in Figs. 1 and 2 a timing device comprising an indicator device (1, 4, 6) and a detector (8) wherein said indicator device comprises the combination of a light-emissive element (1, 4) and a patterning layer (6) patterned with a timing device encoder pattern wherein said indicator device moves relative to said detector. The Examiner states that since element (1, 4) reflects light originating from light source (3), it is herein "considered" that element (1, 4) is light emissive as claimed. This rejection is respectfully traversed.

Contrary to the Examiner's assertions, indicator device (1, 4, 6) of Chin et al does not comprise a light-emissive element (1, 4) within the context of the present invention. By definition, a "light-emissive" element means an element which itself emits light. Element (1, 4) is not a light-emissive element, as it does not itself emit light, but rather merely reflects light emitted by a separate light source (3). It is light source (3) of Chin et al that is the light-emissive element of the encoder of Chin et al. Light source (3), however, does not move relative to detector (8) as is required by the present claimed invention. The Examiner's statement that is "considered" that light reflecting element (1, 4) is light emissive as claimed represents clear error, as such statement is totally unsupported, and "considering" it simply does not make it so. As explained in the specification, the use of an indicator device itself comprising a light-emissive element solves a problem (page 3, lines 19-21) associated with prior art timing devices (including the encoder device of Chin et al) of the need of a separate light source (as is employed in Chin et al), while making the timing device more robust and simpler (page 4, lines 28-29). As Chin et al clearly does not disclose use of an indicator which itself comprises a light-emissive element, Chin et al clearly does not anticipate the present claimed invention. Reconsideration of this rejection is accordingly respectfully requested.

Claims 2-5, 7-9, 13, 14, 16, 17 and 20-29 are rejected under 35 USC 103 as being unpatentable over Chin et al. (US 6,653,619). This rejection is respectfully traversed.

With regard to claims 2, 3 and 7-9, the Examiner states the Chin et al disclose in Figs. 1 and 2 a timing device comprising a light-emissive element (1, 4), but lack a clear disclosure of said element being an electroluminescent material, an organic light-emitting diode, pulse emitter, pixels, and/or emitting light in multiple wavelengths. The Examiner further states that selecting a particular light-emissive element to provide different lighting characteristics would have been obvious to one of ordinary skill in the art, and that it would have therefore been obvious to modify Chin et al by selecting an electroluminescent material, an organic light-emitting diode, pulse emitter, pixels as the light-emissive element, or emitting light in multiple wavelengths in order to provide a longer lasting life of the light source and gain greater control of the output of the device. As explained above, however, element (1, 4) of Chin et al does not comprise a light-emissive element, but rather a light-reflecting element, while employing a separate light source (3) that is not part of the indicator device that moves relative to the detector device (8). Modification of Chin et al by substitution of any of the specified types of light sources for the light source (3) of Chin et al as apparently suggested by the Examiner would still not transform element (1, 4) of Chin into a light-emissive element. As it is an apparent goal of Chin et al to employ a light-reflecting element (1, 4) separate from the light source to allow positioning of the light source and sensor on the same side (see, e.g., title), the light-reflecting element is a necessary element of the device of Chin et al, and it accordingly further would not have been be obvious to transform element (1, 4) itself into a light-emissive element rather than a light-reflecting element as disclosed. A prima facie case of obviousness has accordingly clearly not been established, and reconsideration of this rejection is accordingly respectfully requested.

With regard to claims 4, 5 and 26, the Examiner states Chin et al disclose a timing device comprising an indicator device (1, 4, 6) with inherent bending stiffness, radius, and density, and that it would have been obvious to one of ordinary skill in the art to modify Chin et al by selecting an optical and/or desired bending stiffness, radius, and density in order to provide optimal

performance and detection. For the reasons explained above, however, as element (1, 4) of Chin et al does not comprise a light-emissive element (but rather a light-reflecting element, while employing a separate light source (3) that is not part of the indicator device that moves relative to the detector device (8)), modification of Chin et al as proposed by the Examiner still would not result in the present claimed invention. A prima facie case of obviousness has accordingly clearly not been established, and reconsideration of this rejection is accordingly respectfully requested.

With regard to claims 13 and 14, the Examiner states Chin et al disclose a timing device, but lack inclusion of a shield that only allows the detector (8) to receive light from a small portion of the indicator device (1, 4, 6) and the inclusion of light focusing or directing lenses, and that it would have been obvious to modify Chin et al by including the claimed optical elements in order to provide greater control of the modulation of the light. For the reasons explained above, however, as element (1, 4) of Chin et al does not comprise a light-emissive element (but rather a light-reflecting element, while employing a separate light source (3) that is not part of the indicator device that moves relative to the detector device (8)), modification of Chin et al as proposed by the Examiner still would not result in the present claimed invention. A prima facie case of obviousness has accordingly clearly not been established, and reconsideration of this rejection is accordingly respectfully requested.

With regard to claims 16 and 17, the Examiner states Chin et al disclose a timing device comprising an indicator device, but lack disclosure of the indicator element being in a tubular shape with light emissive elements on the exterior of the tube, and that it would have been obvious to modify Chin et al by selecting a tubular shaped indicator device in order to provide a more compact design. For the reasons explained above, however, as element (1, 4) of Chin et al does not comprise a light-emissive element (but rather a light-reflecting element, while employing a separate light source (3) that is not part of the indicator device that moves relative to the detector device (8)), modification of Chin et al as proposed by the Examiner still would not result in the present claimed invention. Further, the Examiner has not in any event explained how Chin et al or any other prior art would suggest how the disclosed motion encoder of Chin et al employing a separate light source (3) in combination with a light-reflecting element (1, 4)

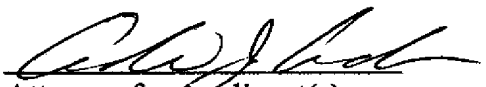
might be modified so as to result in a tubular shape with light-emissive elements on the exterior of the tube. A prima facie case of obviousness has accordingly clearly not been established, and reconsideration of this rejection is accordingly respectfully requested.

With regard to claims 20-25 and 27, the Examiner states Chin et al disclose a timing device comprising a patterning layer (6), but lack a specification/method for forming such layer, and that it would have been obvious to modify Chin et al by selecting a desired method of forming a patterning layer in order to provide an optimal quality of the design of the system if so desired. For the reasons explained above, however, as element (1, 4) of Chin et al does not comprise a light-emissive element (but rather a light-reflecting element, while employing a separate light source (3) that is not part of the indicator device that moves relative to the detector device (8)), modification of Chin et al as proposed by the Examiner still would not result in the present claimed invention. A prima facie case of obviousness has accordingly clearly not been established, and reconsideration of this rejection is accordingly respectfully requested.

With regard to claims 28 and 29, the Examiner states Chin et al disclose a timing device comprising an indicator device with an inherent angle of view, but lack a disclosure of said device being between 5 and 15 degrees, and that it would have been obvious to modify Chin et al by including an indicator device with an angle of view between 5 and 15 degrees in order to provide more reliable sensing results. For the reasons explained above, however, as element (1, 4) of Chin et al does not comprise a light-emissive element (but rather a light-reflecting element, while employing a separate light source (3) that is not part of the indicator device that moves relative to the detector device (8)), modification of Chin et al as proposed by the Examiner still would not result in the present claimed invention. A prima facie case of obviousness has accordingly clearly not been established, and reconsideration of this rejection is accordingly respectfully requested.

In view of the foregoing amendments and remarks, reconsideration of this patent application is respectfully requested. A prompt and favorable action by the Examiner is earnestly solicited. Should the Examiner believe any remaining issues may be resolved via a telephone interview, the Examiner is encouraged to contact Applicants' representative at the number below to discuss such issues.

Respectfully submitted,



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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.